

invention. Each of the aforementioned documents is incorporated by reference herein in its entirety.

**WHAT IS CLAIMED IS:**

1. A system useful for storing a television program P, comprising:
  - a PVR having a first memory, a network interface device, and logic configured to copy the television program P into memory;
  - a second memory in communication with the PVR via the network interface device;
  - virtual storage management (VSM) logic configured to track the location of the second memory on the network, and to store a portion of the program P in the second memory.
2. A system in accordance with Claim 1, wherein the VSM logic is configured to track the total amount of memory storage on the network that is available for storing at least a portion of a program.
3. A system in accordance with Claim 1, wherein the VSM logic is configured to track the memory locations of a plurality of portions P(i) of the program P.
4. A system in accordance with Claim 1, wherein the VSM logic is configured to perform at least one of:
  - (a) track which memory devices on the network are currently active in recording or playback;
  - (b) track which disks on the network are on-line and off-line;
  - (c) track the memory locations of previously stored programs;
  - (d) inform the user when a memory device holding at least a part of a program is off-line;
  - (e) request the user to bring on-line a memory device that is off-line;
  - (f) inform a user before the total available on-line memory runs out;
  - (g) allow the user to set a memory lower limit for the VSM logic to inform the user prior to running out of memory; and
  - (h) after informing the user of the memory lower limit condition, further

provide the user of the option to erase previously stored programs in real time.

5. A system in accordance with Claim 1, further comprising:  
an archival memory device in communication with the PVR; and  
archival storage management (ASM) logic configured to store the program P on the archival memory device.
6. A system in accordance with Claim 6, wherein the archival memory device comprises a DVD-R device.
7. A system in accordance with Claim 1, wherein the first memory and the second memory each comprise a hard disk drive.
8. A system useful for storing a television program P, comprising:  
a PVR having a first memory, a network interface device, and means for copying the television program P into memory;  
a second memory in communication with the PVR via the network interface device;  
virtual storage management (VSM) means for tracking the location of the second memory on the network, and storing a portion of the program P in the second memory.
9. A system in accordance with Claim 8, wherein the VSM means is for tracking the total amount of memory storage on the network that is available for storing at least a portion of a program.
10. A system in accordance with Claim 8, wherein the VSM means is for tracking the memory locations of a plurality of portions P(i) of the program P.
11. A system in accordance with Claim 8, wherein the VSM means is for at least one of:

- (a) tracking which memory devices on the network are currently active in recording or playback;
- (b) tracking which disks on the network are on-line and off-line;
- (c) tracking the memory locations of previously stored programs;
- (d) informing the user when a memory device holding at least a part of a program is off-line; and
- (e) requesting the user to bring on-line a memory device that is off-line;
- (f) informing a user before the total available on-line memory runs out;
- (g) allowing the user to set a memory lower limit for the VSM logic to inform the user prior to running out of memory; and
- (h) after informing the user of the memory lower limit condition, further providing the user of the option to erase previously stored programs in real time.

12. A system in accordance with Claim 8, further comprising:  
an archival memory device in communication with the PVR; and  
archival storage management (ASM) means for storing the program P on the archival memory device.

13. A system in accordance with Claim 12, wherein the archival memory device comprises a DVD-R device.

14. A system in accordance with Claim 8, wherein the first memory and the second memory each comprise a hard disk drive.

15. A method of storing a television program P using a PVR having a first memory device, the method comprising:  
identifying a second memory device that is not full on a network in communication with the PVR; and  
storing at least a portion of the program in the second memory device.

16. A method in accordance with Claim 15, wherein said portion is one of i portions P(i), with  $i > 1$ , and further comprising:

storing a first portion P1 of the program P in the first memory device.

17. A method in accordance with Claim 15, wherein identifying comprises identifying j memory devices that are not full on a network in communication with the PVR, and further comprising sequentially storing a portion of the program P on a memory device of the j memory devices until the entire program has been stored.

18. A method in accordance with Claim 15, further comprising:  
storing all portions of the program P on an archival memory device.

19. A method of playing back a program P using a PVR, the program stored in at least two portions, each portion stored on a separate memory device, each memory device in communication with the PVR, at least one of the memory devices in communication with the PVR via a network, the method comprising:  
playing back a first portion through at least the PVR; and  
playing back a second portion through the network and through the PVR.